

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A system for communication between electronic devices comprising:

- (A) a power line interface;
- (B) an analog front-end processor electrically connected to said power line interface;
- (C) a modem/phone line physical layer digital processor electrically connected to said analog front-end processor;
- (D) a back end interface electrically connected to said modem/phone line physical layer digital processor, wherein said back end interface further comprises a media access controller in communication with a physical layer interface buffer, said media access controller using carrier sense multiple access collision detection to control access to a power line; and
- (E) a computation device in electronic communication with said back end interface.

Claim 2 (original): A method for communicating information from a first computation

device to a second computation device, comprising:

- (A) reading data from computer memory;
- (B) encrypting said read data;
- (C) checking if a channel medium is clear;
- (D) fetching said encrypted data;
- (E) error encoding said fetched encrypted data;
- (F) modulating said error encoded data;
- (G) mapping out bad tones for transmit of error-encoded data;
- (H) filtering said error encoded data;
- (I) amplifying said filtered data; and
- (J) coupling said amplified data to an AC power line.

Claim 3 (original): A method for communicating information from a first computation

device to a second computation device, comprising:

- (A) receiving a power line communication signal;
- (B) amplifying said received power line communication signal;
- (C) filtering said amplified signal;
- (D) converting said amplified signal to data;
- (E) demodulating said data;

- (F) forward error decoding said demodulated data;
- (G) sending said decoded data to a computer memory; and
- (H) decrypting said data in computer memory.

Claim 4 (currently amended): A system for communicating between a computer device to a second computer device, comprising:

- (A) a power line communication channel;
- (B) a digital processor in electrical communication with said power line communication channel, wherein said digital processor employs a HomePNA protocol, wherein said digital processor further comprises a variable gain amplifier controller, said variable gain amplifier further comprising a power detector connected to an integrator low pass filter connected to a gain controller; and
- (C) an interface between said digital processor with a computer device, said computer device further encrypting data for transmit across said power line communication channel.